Supplemental information

Maternal low-protein diet reduces skeletal muscle protein synthesis and mass via akt-mTOR pathway of adult rats

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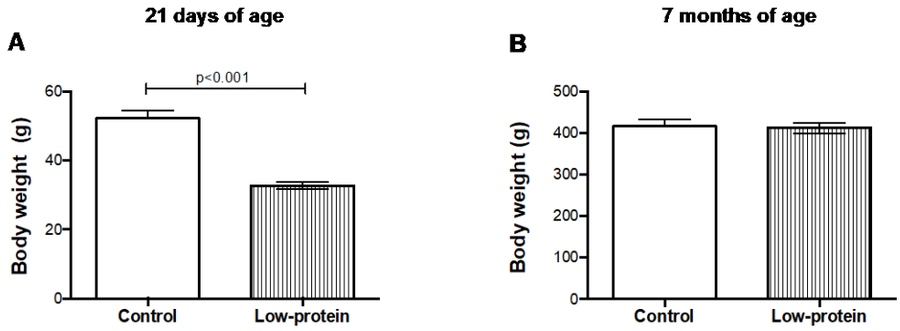


Figure S1. Body weight at 21 days postpartum and at the age of 7 months of pups born to mothers fed a low-protein diet during pregnancy and lactation. Body weight at 21 days (A) and at 7 months (B) of pups born to mothers fed a normoproteic (control, n=9-15) or low-protein (LP, n=9-15) diet during pregnancy and lactation. Results analyzed using an unpaired t test. Values expressed as mean± SEM.

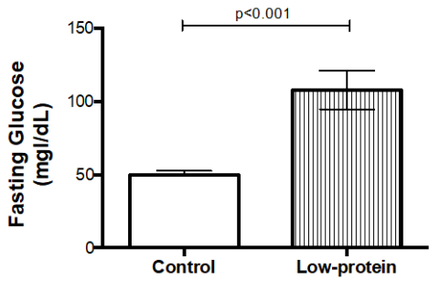


Figure S2. Long-term effects induced by low-protein during early life on glycemia from adults rats. The serum glucose concentration was determined using a commercial kit (glycemia - Laborclin, Pinhais, PR, Brazil) after 12 hours of fasting from rats at 7 months of age. p<0.001 for comparison between low-protein and control (unpaired t test). Values are expressed as mean ± SEM of 10-14 rats.

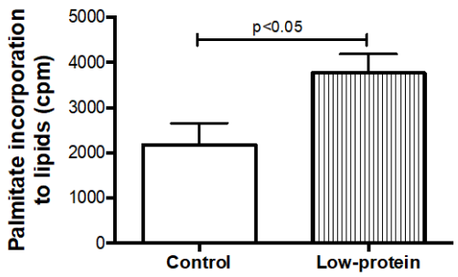
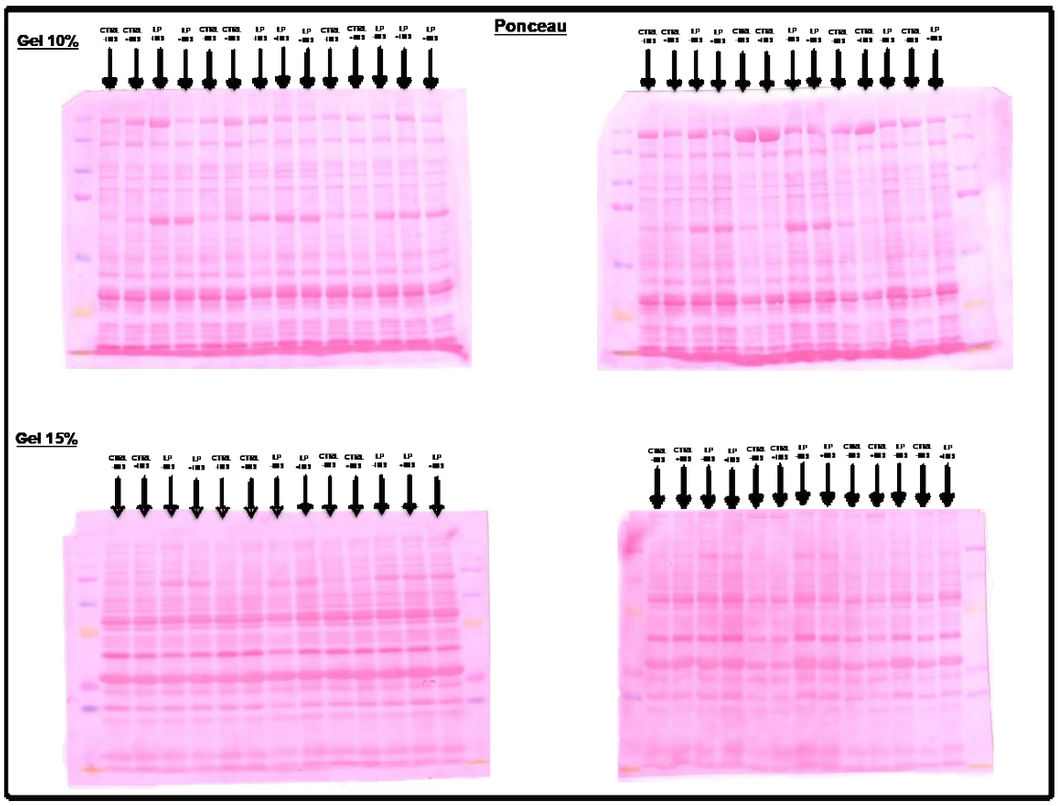
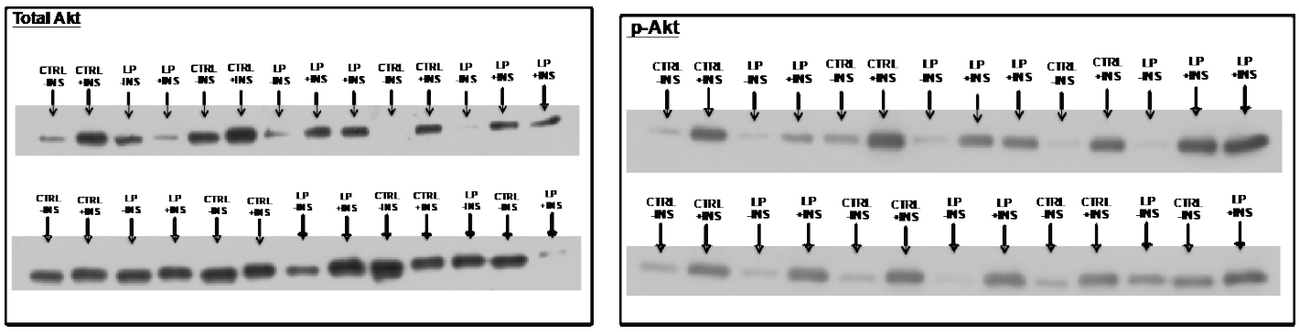


Figure S3. Long-term effects induced by low-protein during early life on lipogenesis of white adipose tissue from adults rats. The lipogenesis was determinate by [1-^{14}C]-palmitate incorporation into TAG, in isolated adipocytes extracted from epididymal adipose tissue of rats at 7 months of age. p<0.05 for comparison between low-protein and control (unpaired t test). Values are expressed as mean ± SEM of 4 rats.

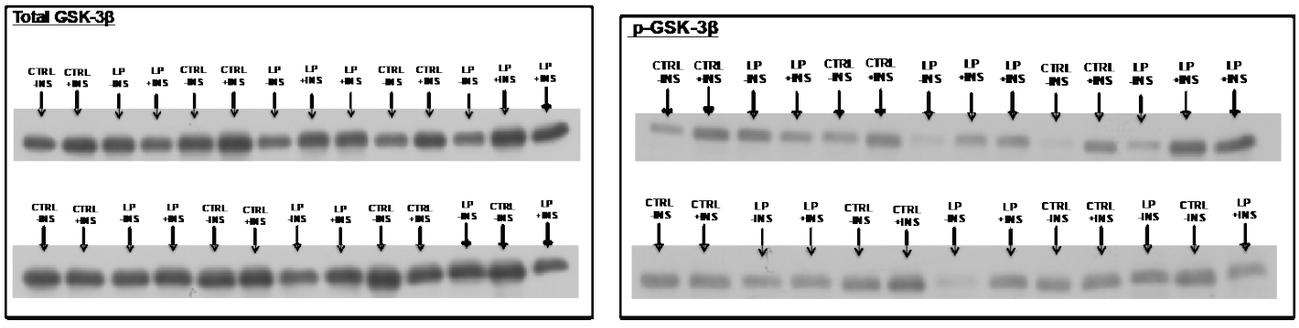
A


Gel 10%
Ponceau
Gel 15%

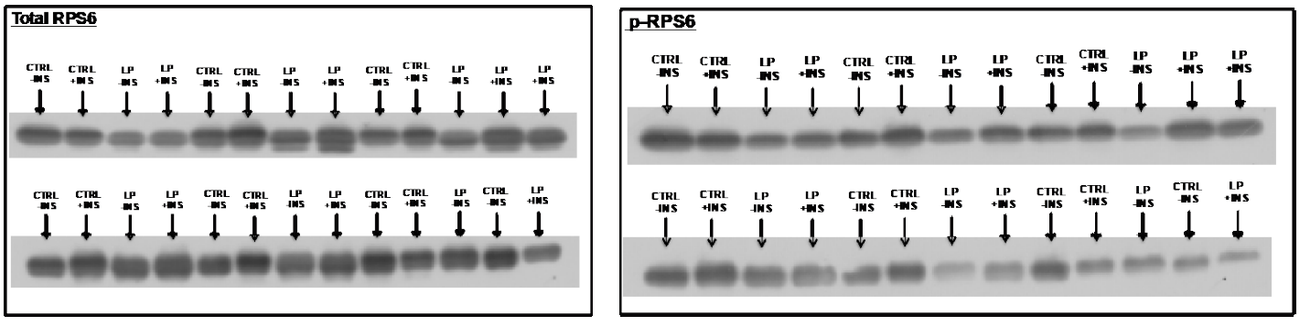
B


Total Akt
p-Akt

C


Total GSK-3β
p-GSK-3β

D


Total RPS6
p-RPS6

E

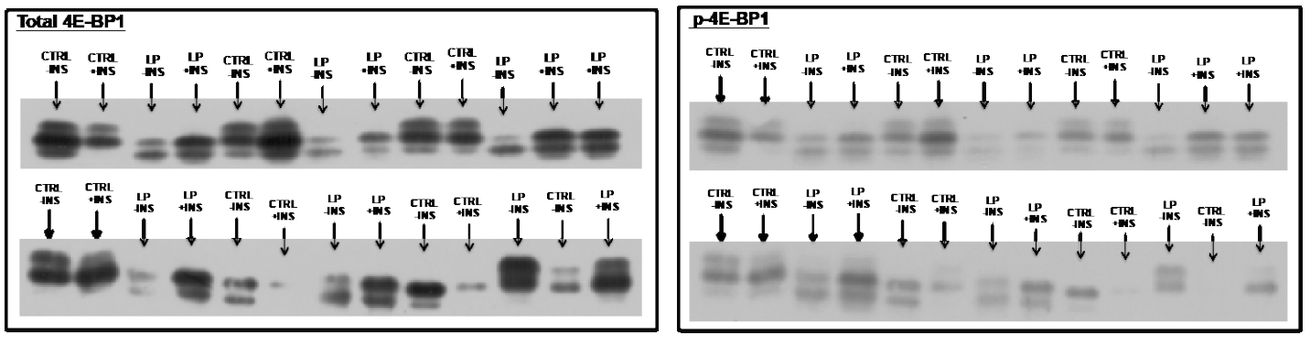


Figure S4. Membranes and blots of western blotting assays of insulin signaling proteins in the incubated soleus muscle from adult rats submitted to the early low-protein diet. Ponceau S staining of nitrocellulose membranes after protein transfer from 10% and 15% polyacrylamide gels (A); blots of total and phosphorylated Akt (B), GSK-3β (C), RPS6 (D) and 4E-BP1 (E).